

REMARKS

Claims 1-21, 34, 35, and 40-50 are pending. Claims 22-33 and 36-39 are canceled.

1. Claims 1-9, 11-14, 16-21, and 40-49 were rejected under 35 U.S.C. §103(a) as being unpatentable over Erickson (US 2,839,651) or Uemura (JP 9-215605), in view of Guiles et al. (US 6,056,844) or Stark et al. (US 2002/0113066 A1). This rejection is respectfully traversed for the following reasons.

Claim 1 is directed to a heating belt including a flexible support coated with a composite material. The composite material includes a polymer and inductively-heatable particles, and the flexible support is generally a non-conductive material and includes woven fabrics, such as fibrous glass, aramids and polysters (see claims 16 and 17). Claim 40 is directed to a system for heating an article including a heating belt similar to the heating belt of claim 1 and a field generator. Claim 45 is directed to a method for heating an article including placing an article in proximity to a heating belt similar to the heating belt of claim 1 and inducing a field about the heating belt.

The PTO appears to rely on Erickson or Uemura for disclosure of a heating belt. Erickson is directed to a belt conveyor system and to heating conveyor belts in such systems, and teaches use of load-bearing metal cables to provide the structural backbone of the belt. Uemura is directed to a steel band belt extended in a movable state between drums and an induction heating coil set in a state that allows it to shift position in the direction of movement of the belt or across it. Neither Erickson nor Uemura disclose use of induction heatable particles.

In an attempt to address the deficiencies of Erickson and Uemura, the PTO asserts that it would have been obvious to "modify Erickson or Uemura to use inductively heatable particles with the polymer material of the belt for better heating temperature control and more uniform heating result, in view of the teachings of Guiles et al. or Stark et al. (Office Action, Page 3)." In this respect, Guiles et al. and Stark et al. teach polymer induction bonding technology and provide for heating of polymeric materials by mixing ferromagnetic particles in the polymer to be heated.

The attention of the PTO is drawn to the Rule 132 Declaration attached hereto, which provides a more detailed technical explanation of the effect modifying Erickson or Uemura to include the inductively heatable particles in view of the teachings of Guiles et al. or Stark et al. As explained in the Declaration, Erickson or Uemura would not have been modified to include the inductively heatable particles of Guiles et al. or Stark et al. because such particles would have little or no influence on temperature control and temperature uniformity.

As described in the Declaration, addition of the inductively heatable particles to the belt of Erickson would not provide better heating temperature control and would not provide more uniform heating results. Even if heat were to be generated by the inductively heatable particles, the resistive heating attributed to the cables of Erickson would dominate over heating, if any, from inductively heatable particles. That is, heat from the inductively heatable particles would be negligible. As such, the asserted modification of Erickson would not provide better heating temperature control and would not provide more uniform heating results.

As stated above, it would not have been obvious to add the particles of Guiles et al. or Stark et al. to the Erickson belt. In addition, it would not have been obvious to replace the conductive components of Erickson with such a composite. Such a replacement would render the belts unsatisfactory for their intended purpose, as the metal cables and steel bands of the respective belts are essential load carrying components.

The combination of Uemura and the secondary references is deficient for the reasons advanced above with respect to Erickson. However, Uemura merits additional comment. Uemura is directed to a steel band belt extended in a movable state between drums and an induction heating coil set in a state that allows it to shift position in the direction of movement of the steel band belt or across it. (Uemura, Abstract). While the system of Uemura may be used to vulcanize sheets of rubber, the belt of Uemura is a steel band belt and does not include a composite or polymer material. As such, the steel band belt of Uemura does not include polymer material to which inductively heatable particles may be added. Accordingly, Uemura is even less relevant than Erickson, and the combination of Uemura and Guiles et al. or Stark et al. would not have been obvious.

For at least the foregoing reasons, Applicants respectfully submit that the presently claimed invention is patentable over Erickson or Uemura, in view of Guiles et al. or Stark et al.. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection is respectfully requested.

3. Claims 10, 15, 34, 35, and 50 were rejected under 35 U.S.C. §103(a) as being unpatentable over Erickson or Uemura, in view of Guiles et al. or Stark et al., and further in view of Kinouchi et al. (US 6,087,641).

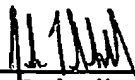
Kinouchi et al. disclose a fixing device having a fixing belt formed of a ferromagnetic metallic material. A separation layer for preventing adhesion of a developing agent (toner), for example, a layer of fluororesin, silicone resin or silicone rubber, may be coated on the surface of the fixing belt. The disclosure of Kinouchi et al. fails to overcome the deficiencies of the above combination. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection in further view of Kinouchi et al. is respectfully requested.

Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims. Should the Examiner deem that any further action by the Applicant would be desirable, a call to the Applicant's representative listed below is requested.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

4.5.06
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